



Babaamaajimowin Akiing

News From the Earth



2017 KBIC Environmental Fair

The KBIC Natural Resources Department held their eighth Environmental Fair on Wednesday, April 19th to celebrate Earth Day .

The event provided hands on environmental education to area schools grades 2-5. Approximately 300 children attended the event from Baraga, L'Anse, and Sacred Heart schools.

Federal, State, Tribal, and Academic organizations/agencies attended the event to provide educational information and hands on learning experiences for the children.

A few of the activities/topics included were:

- ◆ Tree identification
- ◆ Water quality
- ◆ Wetlands
- ◆ Bats
- ◆ Fisheries management
- ◆ Air quality
- ◆ Native plants
- ◆ Natural foods
- ◆ Recycling
- ◆ Pollinators
- ◆ Erosion
- ◆ Solar energy

According to the participants and teachers that attended the event, it was a huge success.



Participant wearing a beekeeper suit



Learning how to identify trees with KBIC Forester Jason Collins

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NRD Conducts Wetland Baseline Data Collection Under Administration for Native Americans Grant

In 2016 the KBIC received funding to conduct a two year study of the wetlands within the L'Anse Indian Reservation. The study will focus on plant life, macro-invertebrates, wildlife, water quality, and sediment quality in various types of wetlands in our area. In year two, the NRD will be reaching out to KBIC community members to complete a survey related to knowledge of wetland resources and use by tribal members.

What exactly is a wetland? There are a lot of very technical definitions of a wetland out there, but essentially wetlands:

- ◆ are transition zones between land and water
- ◆ are wet at least part of the year
- ◆ have hydric (wet) soils
- ◆ have hydrophilic (water loving) plants

Marsh, Bog, Fen, and Swamp are all types of wetlands that you can find in our area.

Threats to Wetlands Changes in seasonal weather patterns, increase in extreme weather events, changes in Lake Superior ice cover and water levels, change in abundance and distribution of coastal wetlands, loss of native plant and animal species, and increase in non-native and invasive species are potential impacts of climate change on wetland ecosystems.

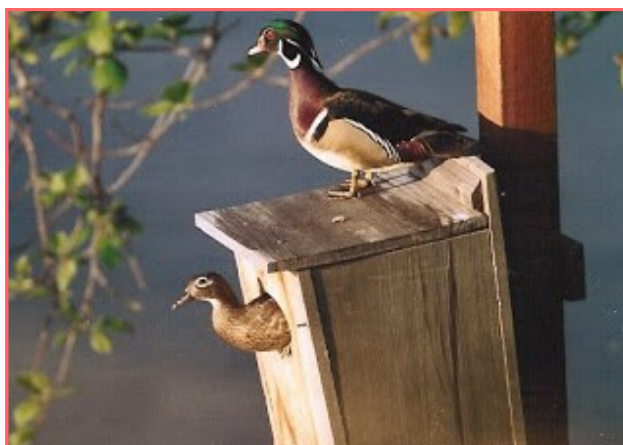
Why should WE care about wetlands? Wetlands are unique places that provide essential habitat for



Viewing tour overlooking Mud Lakes and associated wetlands

many plants and wildlife that are of cultural significance to the Ojibwe people. In the Ojibwe language the words for bog (mashkiig), swamp (waabashkiki) and medicine (mashkiki) are similar in origin suggesting a connection between these types of wetland ecosystems and the location that many medicinal plants are found. In addition, wetlands pro-

vide a number of positive benefits to people. We call these ecosystem services. Some of the *ecosystem services* provided by wetlands include: water purification, flood protection, erosion control, groundwater recharge, streamflow maintenance, recreation and tourism, and climate change mitigation.



Wood ducks

For more information about wetlands, please visit our website at nrd.kbic-nsn.gov.

NRD Continues to Work to Bring Wild Rice back to KBIC

Since the early 1990's the Natural Resources Department (NRD) has worked diligently to identify historic and potential rice beds on-Reservation and within the ceded territories. To date, 33 lakes/ rivers have been seeded by NRD staff and partners. Last year, 12 areas were seeded with our partnership support.

In 2015 a Western U.P. Wild Rice Partnership was created that includes Federal, State, and Tribal agencies all working together on wild rice stewardship throughout the region. Agencies represented include the U.S. Forest Service, Michigan Department of Natural Resources, USDA Natural Resources Conservation Service, Michigan Department of Transportation, Lac Vieux Desert Band of Lake Superior Chippewa, and the Great Lakes Indian Fish & Wildlife Commission.



Wild rice

The NRD received two years of funding from the EPA to further investigate the environmental factors that may be supporting or limiting success of wild rice in our region. In addition to the annual wild rice assessments and plantings, White Water Associates, Inc. was hired to as-

sist the NRD with collecting and analyzing water, sediment, and sediment pore water from various wild rice waters within the Western U.P. In 2016, 8 wild rice waters were sampled. An additional 8 to 10 sites will be sampled in 2017. The results of this study will be used to prioritize restoration activities in an effort to meet our long term goal of establishing self-sustaining wild rice populations on the reservation and within the ceded territory.

For more information about wild rice, please visit our website at nrd.kbic-nsn.gov.



KBIC contractors from White Water Associates, Inc. using clean hands, dirty hands mercury sampling protocol in wild rice beds under EPA Tribal Initiative funded project, 2016.



Peeper frog

Emerald Ash Borer

Emerald Ash Borer (EAB) was detected in Baraga County. Last fall the United States Department of Agriculture (USDA) confirmed that EAB was found during the USDA 2016 trapping program.

Where did EAB come from?

Emerald Ash Borer, *Agrilus planipennis*, is a beetle from Asia that was first discovered in south-eastern Michigan in 2002. It is believed that EAB arrived in the United States on wood packing material carried in cargo ships or airplanes.

EAB has now been detected in 24 states and has killed millions of ash trees.

How is EAB spread?

Infested firewood is the most common way that EAB is spread. Don't haul firewood with you, buy it or gather it (if permitted) where you will be burning it.

Please don't move firewood!



EAB damage



Adult EAB beetles and "D" holes

Why are EAB a concern?

Ash trees are valued for culturally important crafts and ceremonies along with many other uses such as sports equipment (baseball bats and hockey sticks), flooring, furniture, and tool handles.

EAB only attacks ash trees. The adult beetles are metallic green and about ½-inch long. When the adult beetles emerge in the spring they leave a D-shaped hole in the bark. The adult beetles eat ash leaves and cause little damage.

The EAB larvae are the big problem. They feed on the inner bark and sapwood of ash trees which disrupts the tree's ability to transport

water and nutrients, eventually killing the tree.

Woodpeckers like to eat EAB larvae so heavy woodpecker damage on ash trees may be a sign of infestation.

To learn more about EAB go to:

<http://www.emeraldashborer.info/>



EAB Larvae

Why Did the Turtle (mikinaak) Cross the Road?

A turtle in the roadway is most likely a mother turtle looking for a place on high ground to lay eggs.

If it's possible to safely give the turtle some help crossing the road, pull off the road and turn on your hazard lights. You can then gently pick up a painted, or wood turtle by the middle edge of its shell, and move it across the road in the direction it was going. Please be careful with snapping turtles they

can be aggressive. Use a branch or a broom to prod them across the road. Don't turn the turtle around or it will most likely just try to cross the road again.

For more information about turtles check out:

<http://nrd.kbic-nsn.gov/sites/default/files/Turtle-Identification-handout.pdf>



Snapping turtle



Wood turtle



Painted turtle

Nuisance Wildlife & You

Spring has sprung and many woodland creatures are venturing out of their cozy winter beds to find something to eat. As much fun as it is to see our furry friends once again, they often find themselves in our yards and garages looking for a free meal.

To avoid problems with bears and other wildlife it is best to remove bird feeders and other food sources that may tempt these critters to come into yards. Do not leave food scraps or other open food containers around your property. This behavior encourages wildlife to lose their natural fear of humans and they may become a threat to humans and pets.

Please be responsible this spring and do not feed the wildlife!

For more information about Problem Wildlife, visit: http://www.michigan.gov/dnr/0,4570,7-153-10370_12145_25065---,00.html



Mama bear enjoying a snack with her little ones in tow

Let Them Be Wild

With the onset of spring comes new life. The forest floor is covered with beautiful wildflowers basking in the sun until the trees leaf out and block the rays from reaching the forest floor. This is also the time for the next generation of wildlife to appear.

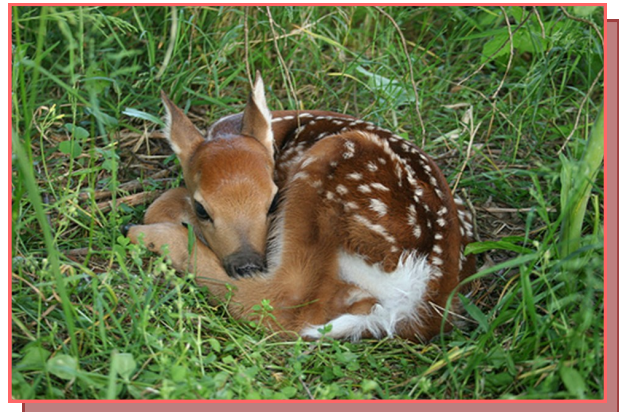
We would like to take this opportunity to remind everyone to enjoy nature and the experience of seeing wildlife, but please keep your distance and do not disturb. For safety reasons, many species hide their young while they go off to feed giving the appearance that

they have abandoned their babies. Deer often leave their young for hours at a time to reduce the amount of scent left in the area. If you happen across a fawn, do not touch it and leave the area quickly to avoid leaving your scent. The mother will return when she feels safe. Leaving them in the wild provides the best chance for survival.

It is **illegal** to possess a live wild animal in the State of Michigan. Only a licensed wildlife rehabilitator may possess abandoned or injured wildlife.

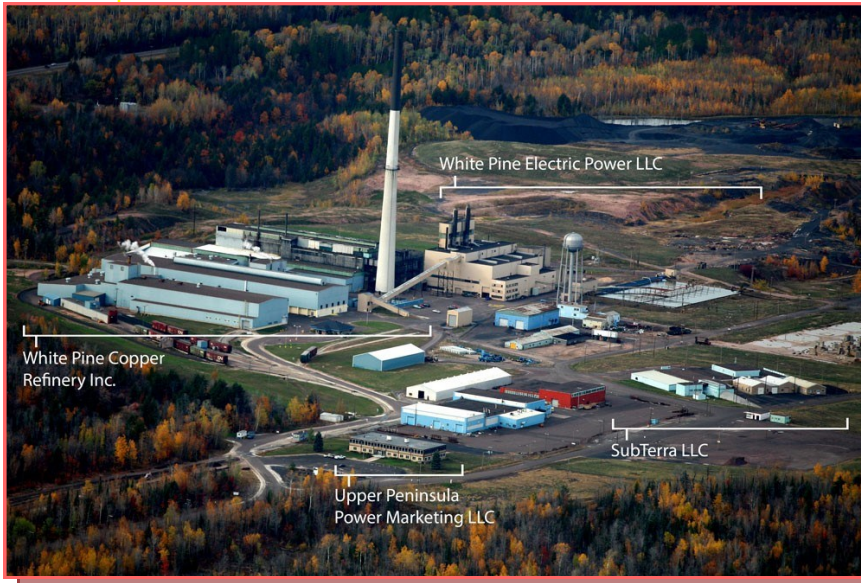
Check out:

<http://www.michigandnr.com/dlr/>
for a list of licensed wildlife rehabilitators in Michigan.



White-tailed deer fawn

White Pine Copper Refinery



A renewal of the 5-year DEQ air quality Renewable Operating Permit (ROP) of the White Pine refinery is under consideration. A public hearing regarding the ROP of the refinery took place on April 13, 2017 at the Ontonagon School Cafeteria. After the DEQ addresses public comments on-record, the ROP will be submitted to the US EPA for a 45-day review. White Pine Refinery is currently owned by PM Power Group, and is not affiliated with Highland Copper.

White Pine North

Project Lead: Highland Copper Company Inc. (Acquiring from Copper Range Company, started in May, 2014)

Status: Highland's focus area is to the north of the former White Pine mining area.

Back Forty

Project Lead: Aquila Resources Inc. (Fully acquired from Hudbay Minerals Inc. in November, 2013)

Location of Project: Menominee County, MI (not in 1842 Ceded Territory – it is in 1836 Treaty of the Cedars Territory). Twelve miles west of the city of Stephenson and approximately 150 feet from the Menominee River, which forms the boundary between MI and

WI.

In November, 2013 Aquila acquired the majority 51% interest from Hudbay Minerals.

On December 28, 2016, the Michigan Department of Environmental Quality (DEQ) approved the mining permit. The National Pollutant Discharge Elimination System (NPDES) Permit was granted on April 5,

2017. The Section 404 Clean Water Act wetlands permit is being reviewed by the DEQ. A land swap with the State of MI, and realignment of road(s)/infrastructure will also need to take place prior to mining project operations.

Trans Superior Resources

Project Lead: Trans Superior Resources, Inc. (Wholly-owned subsidiary of Bitterroot Resources).

Location of Project: Northeast of Bergland, Ontonagon County in the Ottawa National Forest, Bergland Ranger District; located about 50 miles of the L'Anse Reservation and 25 miles from the Ontonagon Reservation.

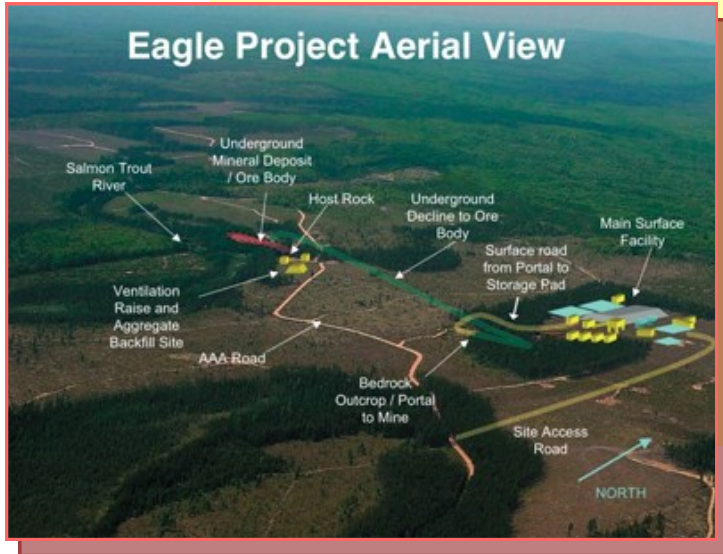
Status: Notice to Proceed (NTP) and

permit was issued for the Cuesta/Haystack South project. As of March 2017 no activity has taken place. An NPT is an agreement between the surface and mineral owners to commence with the proposed exploration. The Cuesta/Haystack South project is on Ottawa National Forest (ONF) surface-owned lands, but mineral rights are privately owned.



For more mining updates check out our website:
nrd.kbic-nsn.gov

Lundin Eagle Mine



Status: On February 16, 2017 Eagle Mine requested an amendment to their Part 632 mining permit to include a tunnel (decline) extending from the underground portion of Eagle Mine, east towards the eastern boundary of the Eagle Mine's surface facilities. This decline is being constructed in order to facilitate exploration of the Eagle East mining project. The decline is expected to be completed by Spring 2020. Production of ore will start in the first quarter of 2020. Public comments were made to the DNR by KBIC in response to Eagle Mine's Nonmetallic Mineral lease request, related to Eagle East, on March 10, 2017.

Eagle Mine will be conducting public tours of the Eagle Mine site and Humboldt Mill, beginning alternating Fridays in June 2017.

Highland Copper Company Inc. Orvana/Copperwood

Project Lead: Highland Copper Company Inc. (Acquired from Orvana in June, 2014)

Location: Approximately 70 miles west from the L'Anse Reservation and 45 miles southwest from the Ontonagon Reservation, in Gogebic County.

Status: Highland started exploratory drilling in the Porcupine Mountains Wilderness State Park in February, 2017. The exploratory drilling, into Precambrian aged bedrock, was used by Highland to refine their Copperwood mining program. While the State of Michigan owns

the surface land rights, managed by the DNR, Highland owns the subsurface mineral rights. On April 20, Michigan Depart-

ment of Environmental Quality (DEQ) cited Highland Copper for drilling violations.



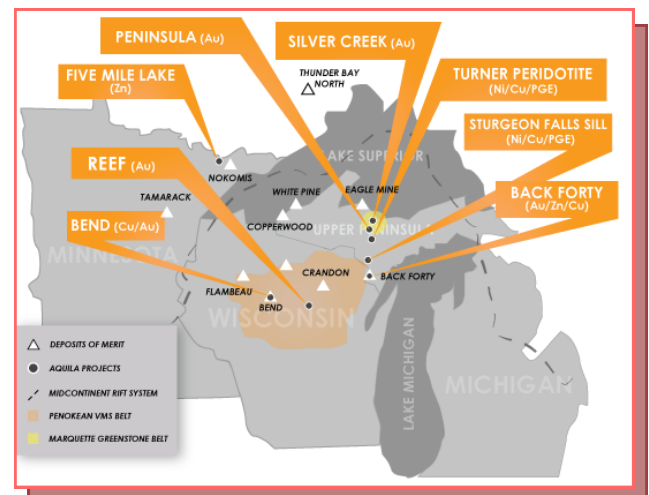
Here is a link to that violation letter: <http://www.michigan.gov/documents/deq/MDEQletterHighland->

Senate Bill 129

Michigan SB129, or Small Native Copper Mining Bill, was introduced in February 2017 by Senator Tom Casperson, R-Escanaba. This Bill has passed the MI Senate and the MI House (as of Apr. 25, 2017), and will add Part 634 (Part 632 is the sulfide mining portion of the law) to the Natural Resources and Environmental Protection Act to establish regulations specific to elemental copper mining operations involving the generation of 10,000 to 75,000

tons of waste rock or the disturbance of 1 to 10 acres of land per year. KBIC provided public comment regarding this Bill when it was introduced to the House Natural Resource Committee. A representative from Caledonia Mine, Ontonagon County, and Representative Scott Dianda, D-Calumet, testified in-favor of the Bill.

Highland Keweenaw Project



Additional Aquila Exploration Sites

Come and Join us for Upcoming KBIC-NRD Events



15th Annual Kids Fishing Derby

The 15th Annual Kid's Fishing Derby will be held on Saturday, June 24th at the Sand Point day use area in Baraga.

For more information call: 524-5757

Lake Superior Day Beach Clean-up

A Lake Superior Day (which is officially the third Sunday of July) Beach Clean-up will be held on Friday, July 14th. We will be meeting at the Sand Point day use area in Baraga at 8:30 a.m. After the beach clean-up there will be a lunch and learn presentation along with other fun activities.

For more information contact:

Shannon DesRochers @ 524-5757 ext. 25

sdesrochers@kbic-nsn.gov

Check us out, We're on the web!

nrd.kbic-nsn.gov

Lunch and Learn Series

Beginning in May KBIC-NRD along with KBOCC will host a series of Lunch and Learn events each month. During these Lunch and Learn events there will be a short presentation focusing on Food Sovereignty and lunch will be provided. For more information contact:

DeAnna Hadden @ 524-5757

dhadden@kbic-nsn.gov

Or

Kit Laux @ 524-8203

klaux@kbocc.edu



2016 Lunch and Learn

Attention Tribal Gardeners!

Do you like gardening, but don't have the space to do it at home?

Don't have a green thumb, but would like to try and start a garden?

Sign up for a family plot at ***The People's Garden*** in L'Anse (sponsored by the KBIC Natural Resources Department).

Contact DeAnna Hadden@524-5757 ext. 22 dhadden@kbic-nsn.gov for more information.



There will also be a cultural gathering area next to The People's garden that will be open to community members.